

IN THE CLAIMS

Claims 1-10 (Cancelled)

Claim 11 (New): A process for the purification of acrylic acid by crystallization to obtain crystals and a mother liquor, wherein the crystals are washed with a wash liquid comprising acrylic acid and having a temperature of from 15 to 20°C.

Claim 12 (New): A process as claimed in Claim 11, wherein a wash liquid which has a higher purity than the mother liquor with respect to acrylic acid is used.

Claim 13 (New): A process as claimed in Claim 11, wherein a wash liquid comprising from 97.0 to 99.9% by weight, based on 100% by weight of liquid, of acrylic acid is used.

Claim 14 (New): A process as claimed in claim 11, wherein the crystallization is carried out as a suspension crystallization.

Claim 15 (New): A process as claimed in claim 11, wherein a wash liquid having a temperature of from 16 to 20°C is used.

Claim 16 (New): A process as claimed in claim 11, wherein a wash liquid having a temperature of from 17 to 20°C is used.

Claim 17 (New): A process as claimed in claim 11, wherein washing is effected with an amount of from 3 to 80 g of wash liquid/100 g of crystals.

Claim 18 (New): A process as claimed in Claim 11, wherein the wash liquid used is a pure product comprising from 99.3 to 99.8% by weight of acrylic acid.

Claim 19 (New): A process as claimed in claim 11, wherein the washing is carried out in a plurality of stages.

Claim 20 (New): A process for the preparation of acrylic acid by

- (a) preparation of a gaseous product mixture which essentially has the composition of a reaction mixture of the catalytic gas-phase oxidation of C3-alkanes, C3-alkenes, C3-alkanols and/or C3-alkanals and/or precursors thereof to acrylic acid,
- (b) condensation of the gaseous product mixture,
- (c) crystallization of the acrylic acid from the solution obtained in stage (b) and
- (d) purification of the acrylic acid from the crystals of the preceding stage by washing the crystals with a wash liquid comprising acrylic acid and having a temperature of from 15 to 20°C.

Claim 21 (New): A process as claimed in Claim 20, wherein in stage (d) a wash liquid which has a higher purity than the mother liquor with respect to acrylic acid is used.

Claim 22 (New): A process as claimed in Claim 20, wherein in stage (d) a wash liquid comprising from 97.0 to 99.9% by weight, based on 100% by weight of wash liquid, of acrylic acid is used.

Claim 23 (New): A process as claimed in claim 20, wherein in stage (d) the crystallization is carried out as a suspension crystallization.

Claim 24 (New): A process as claimed in claim 20, wherein in stage (d) a wash liquid having a temperature of from 16 to 20°C is used.

Claim 25 (New): A process as claimed in claim 20, wherein in stage (d) a wash liquid having a temperature of from 17 to 20°C is used.

Claim 26 (New): A process as claimed in claim 20, wherein in stage (d) washing is effected with an amount of from 3 to 80g of wash liquid /100g of crystals.

Claim 27 (New): A process as claimed in Claim 20, wherein in stage (d) the wash liquid used is a pure product comprising from 99.3 to 99.8% by weight of acrylic acid.

Claim 28 (New): A process as claimed in claim 20, wherein in stage (d) the washing is carried out in a plurality of stages.

Claim 29 (New): A process as claimed in Claim 20, wherein the wash liquid is a solution obtained from the condensation of the gaseous product mixture in (b).